

Examples of Onshore Natural Resource Issues in South Carolina: *The Potential Natural Resource Impacts*

Presented at the Workshop for
Onshore Implications of
Ocean Energy Development
Presented on Behalf of the
Regulatory Task Force for
Coastal Clean Energy

March 25, 2010

Presentation Objective:

To provide a list of potential onshore natural resource impacts that may be associated with ocean energy development off the coast of South Carolina.

Potential Environmental Impacts

- Any ocean energy development will create an affected action in the near-shore and associated upland environments.
- There will be any number of potential environmental impacts.
- These impacts are covered under Federal or State environmental laws or regulations.
- The impacts will be analyzed under the stepwise process outlined in the National Environmental Policy Act (NEPA).

Potential Environmental Impacts

The stepwise process identified in NEPA.

- Identify the purpose and need of a project.
- Identify the potential environmental impacts.
- Avoid the potential environmental impacts.
- Minimize those impacts that cannot be avoided.
- Mitigate for those impacts that cannot be minimized.
- Compensate for those impacts that cannot be mitigated.

Potential Environmental Impacts

The fundamental question –

- Where and what will they be?
- It all depends on location, location, location!
- Location for the ocean energy generation facilities, systems and infrastructure.
- Location for where they pass to shore and tie-in with distribution lines, etc.
- e.g., where will the right-of-ways be located?

Potential Environmental Impacts

➤ Where and what will they be?

1. **Near-shore Environment: From the high water mark to inland connection destination(s)**
2. **Upland Environment: From the near-shore to inland connection destination(s)**

Potential Environmental Impacts

Marine-upland interface: transmission lines/cabling, pipelines and distribution systems



Potential Environmental Impacts

Near-shore environment: Physical and biological



Potential Environmental Impacts

Near-shore environment

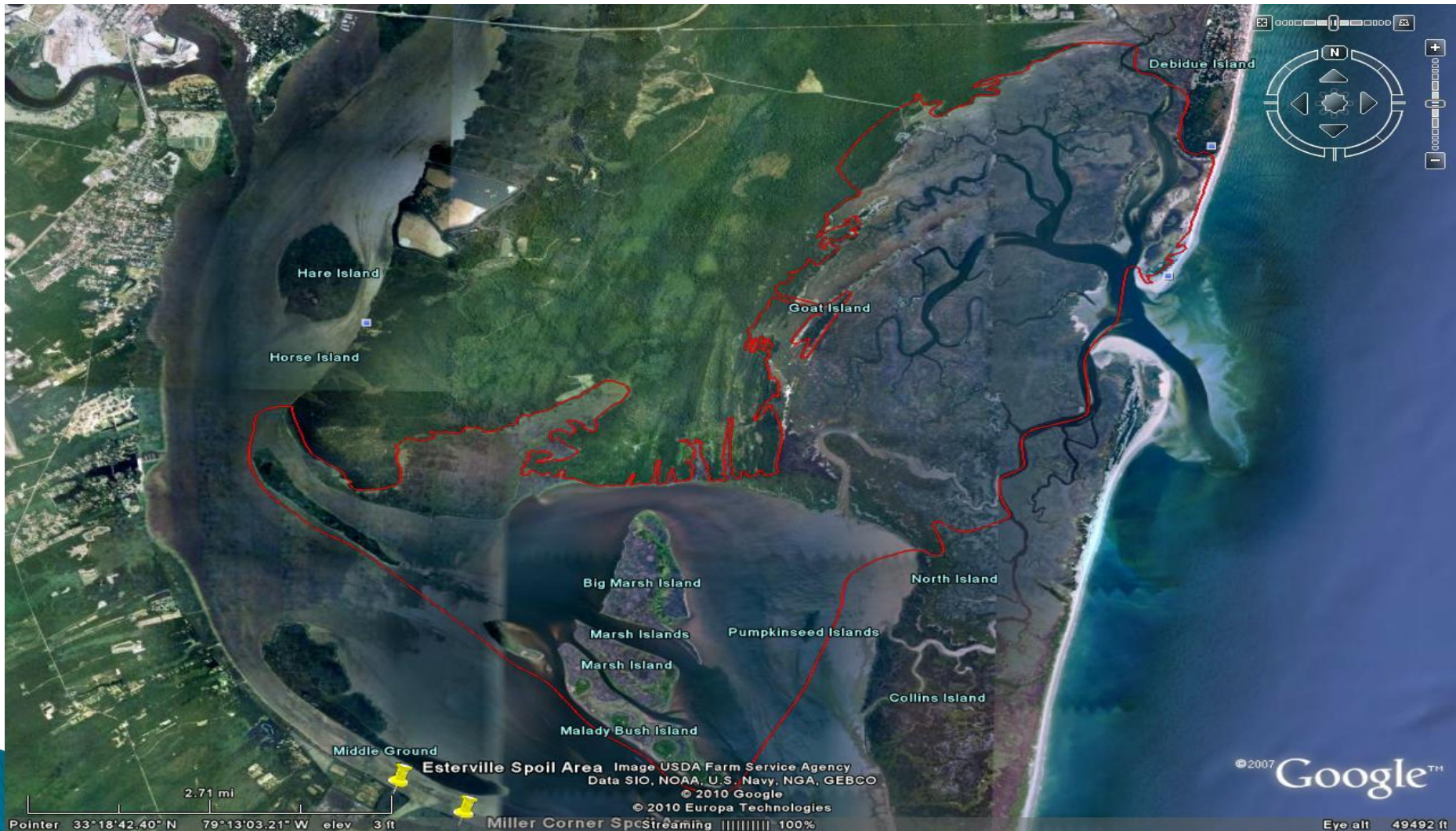


Potential Environmental Impacts

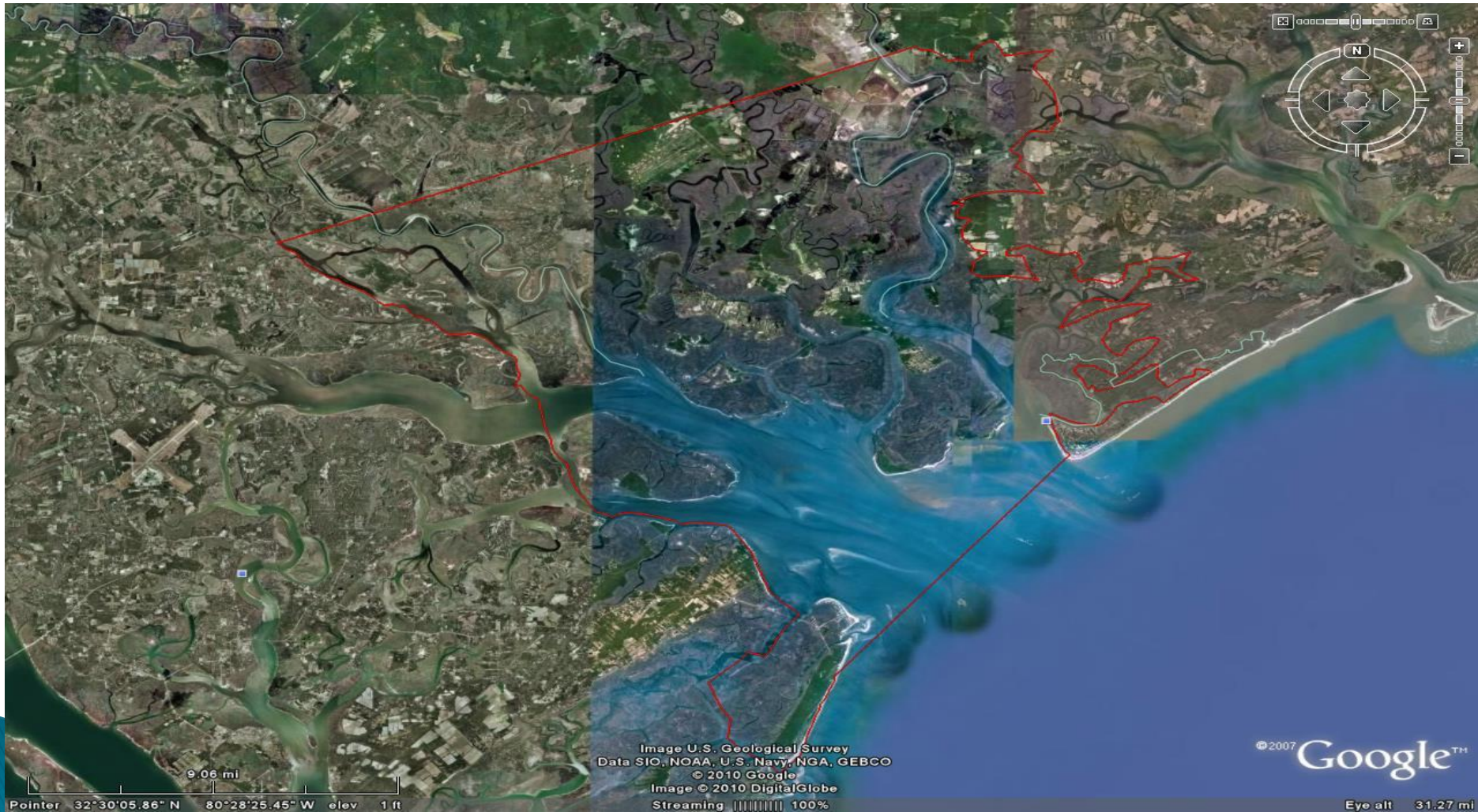
Upland Environment: Protected Areas



Protected Areas: North Inlet–Winyah Bay National Estuarine Research Reserve



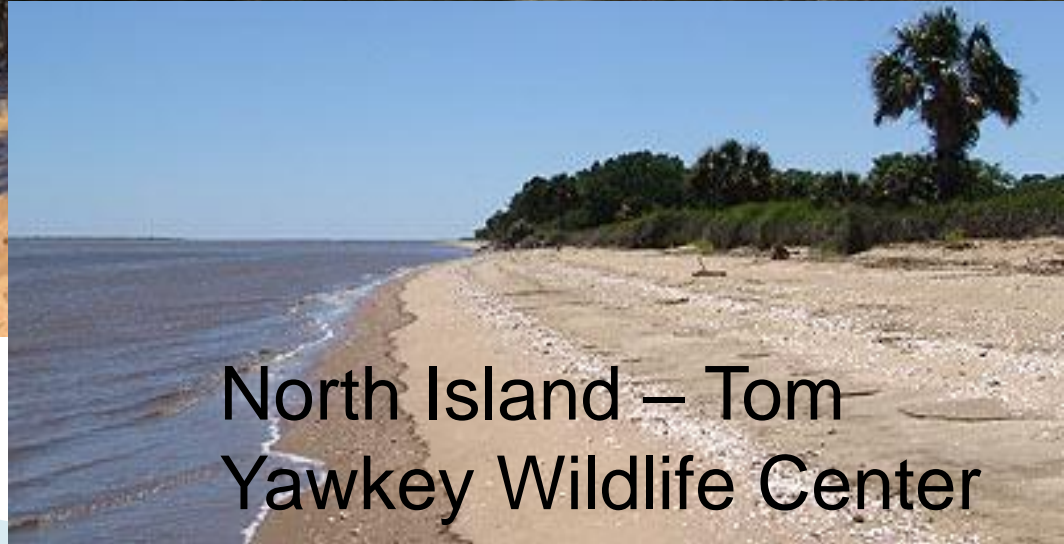
Protected Areas: ACE Basin National Estuarine Research Reserve



Potential Environmental Impacts

Upland Environment: Wilderness

Protected areas



North Island – Tom
Yawkey Wildlife Center

Potential Environmental Impacts

Upland Environment: Protected areas

Bird Key Stono HP

Bear Island WMA

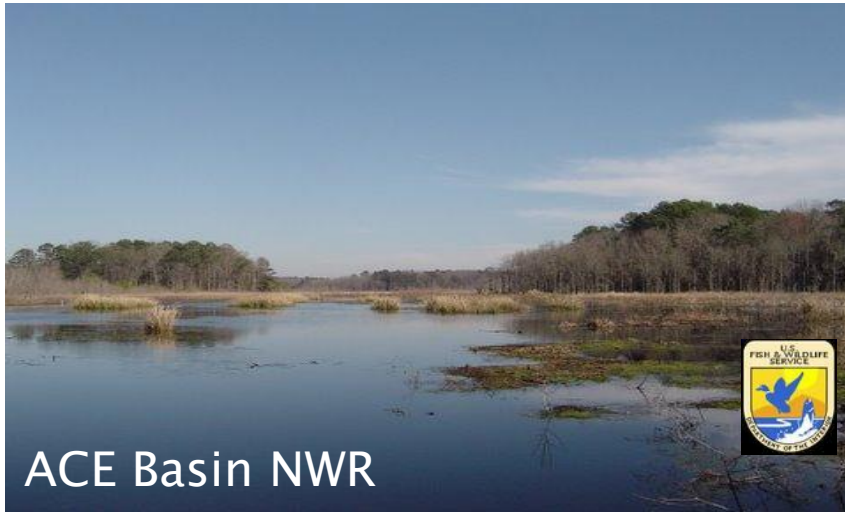


Botany Bay HP

Santee-Delta WMA

Potential Environmental Impacts

Upland Environment: Federal Areas

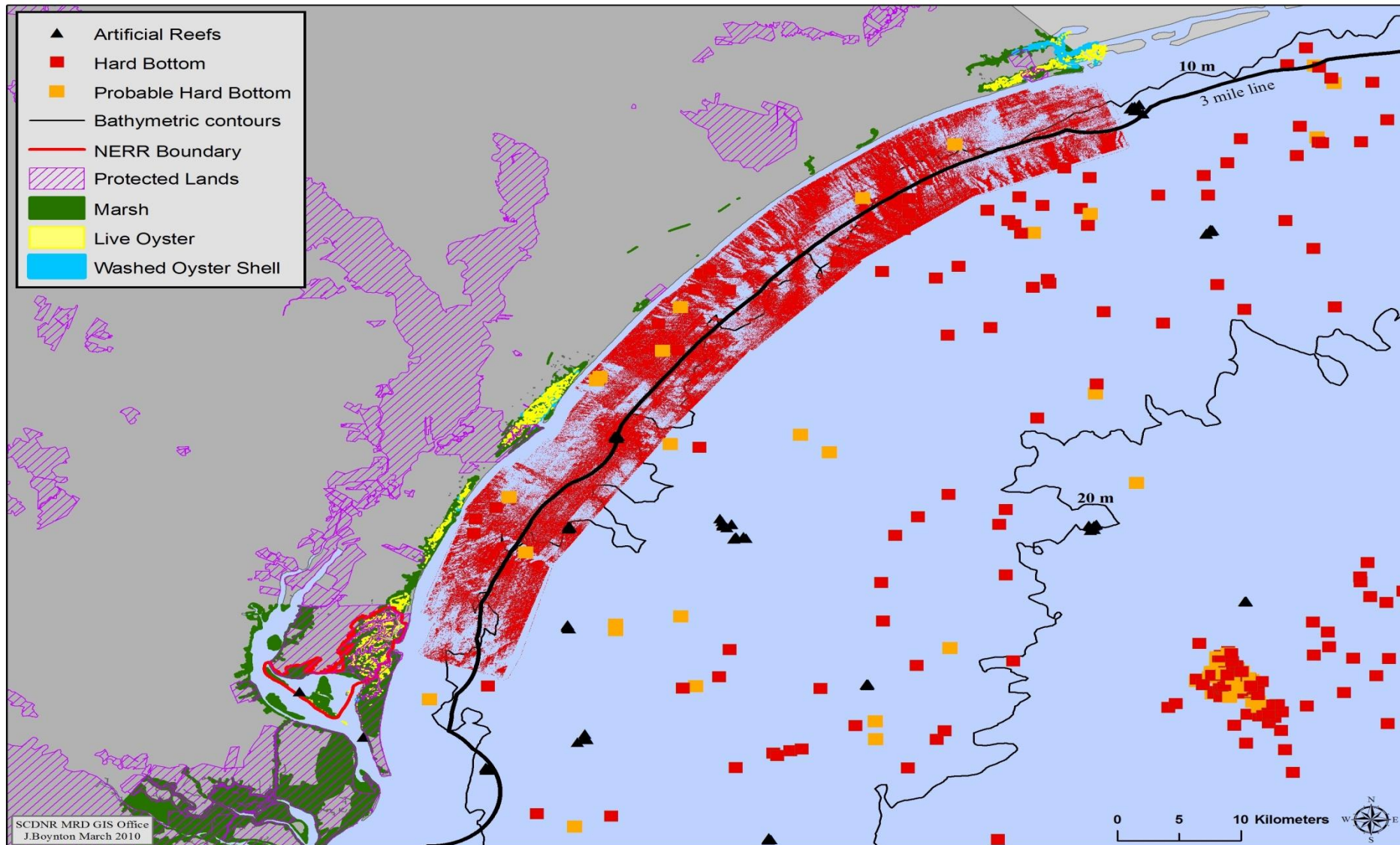


Potential Environmental Impacts

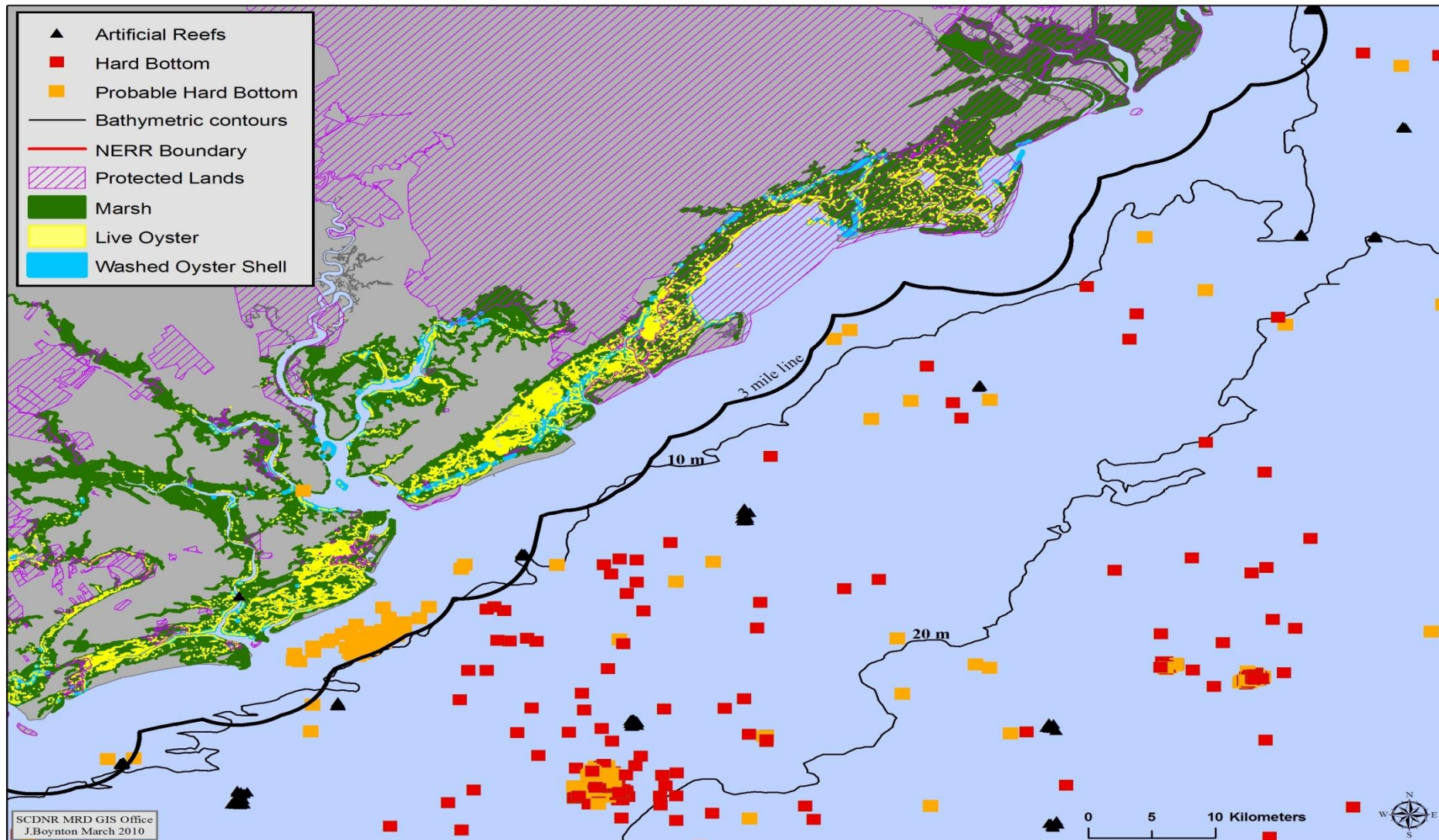
Upland Environment: Live oyster habitat



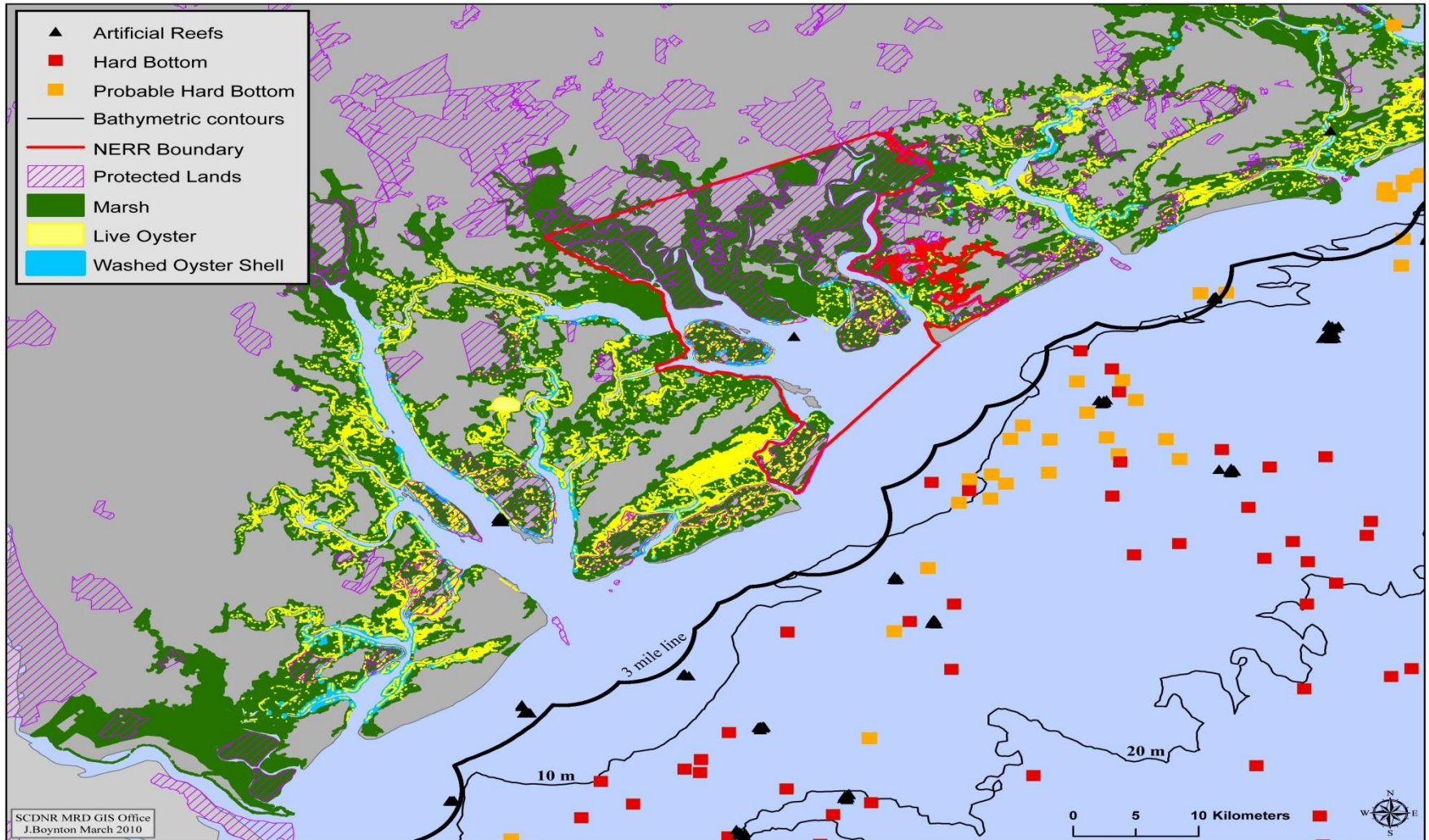
Potential Environmental Impacts



Potential Environmental Impacts



Potential Environmental Impacts



Potential Environmental Impacts

- Geospatial planning in concert with ocean energy development will determine where onshore impacts will occur.
- Environmental decisions are based on balancing the need for any particular proposal with identifiable impacts.
- While there will be impacts, many of them can be avoided by selecting a location having desired wind but fewer environmental impacts.
- Where impacts cannot be avoided, they usually can be minimized by site selection.

Conclusions

Potential Environmental Impacts Related to Ocean Energy Development

- Location will determine environmental impacts.
- There are multiple potential environmental impacts to habitats, species, and the physical and human environment.
- The NEPA process will determine which environmental impacts apply.
- There may be difficult issues to work through, but geospatial modeling will determine the least environmental impact routes for right-of-ways and other infrastructure.

Questions?

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